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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,060	09/27/2007	Patrick Brouhon	200207058-4	1734

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

WOLDEMARIAM, AKILILU K

ART UNIT	PAPER NUMBER
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2624

NOTIFICATION DATE	DELIVERY MODE
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07/08/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/571,060	Applicant(s) BROUHON, PATRICK	
	Examiner AKLILU k. WOLDEMARIAM	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/15/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/15/2009, 03/08/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 04/15/2009 was filed after the mailing date of 04/15/2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 31-49 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The Federal Circuit¹, relying upon Supreme Court precedent², has indicated that a statutory “process” under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the “machine or transformation test”, whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See *Benson*, 409 U.S. at 71-72), and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity (See *Flook*, 437 U.S. at 590”). While the instant claim(s) recite a series of steps or acts to be performed, the

¹ *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

² *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

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claim(s) neither transform an article nor are positively tied to a particular machine that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. *Machine test Analysis*, in claim 31 in the steps "defining", "identifying" and "selecting" do not have any "computer" or "processor" or "device" to carry out all the steps of in claim 31. It is clear that claim 31 is not tied to a particular machine and claim does not fail to pass the machine test analysis. And also claim 31 does not have (a) physical or chemical transformation of a physical object, (b) no modification to data or signal; (c) claim 31 does not have either displaying or printing anywhere in claim; (d) Modification and/or transformation not meaningful or insignificant. Therefore claim 31 requires computers or processors or device after the word "comprising".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 31-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Priddy et al., "Priddy" (U.S. Patent number 5, 464,974 from IDS) in view of Peter (International Publication number WO 01/71644 A1 from IDS).

Regarding claim 31, *Priddy* discloses a method of generating an image comprising a position identifying pattern and content (see items 106 and 108, fig.5 determining cell position and identifying pattern distribution key) the method comprising the steps of:

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defining criteria relating to a region where the content (*see column 3, lines 39-46, by defining the maximum range of characters that may appear at each position of the input string, it is possible to suppress those binary bits which contain information redundant and common to the entire range of characters thereby compressing the required number of visual squares to represent a single character to less than eight*);

identifying such a region in the image (*see column 6, lines 20-24, the pattern of data 19 is decoded by first identifying the pattern distribution key in accordance with step 108. The distribution key will always be stored as a number of visual cells located at a specific position relative to the corners of matrix 10 and matrix referred to as region*); and

selecting a characteristic of the pattern or the content in the region on the basis of the criteria, such that the image in the region meets the criteria (*see item 108, fig.5, identifying pattern distribution key and column 4, lines 26-38, the physical size may range from one-tenth of an inch square to seven inches square, but is limited only by the ability of the user's print device to create the selected size*).

Priddy does not disclose the pattern are superimposed, the criteria determining whether the pattern will be distinguishable over the content when applied to a product.

However, Peter discloses the pattern are superimposed, the criteria determining whether the pattern will be distinguishable over the content when applied to a product (*see page 8, lines 13-25 the determination of the locations of overlapping markings can be drawn from, for example, the technique of astrometrically determining positions of*

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imaged stars which are located in dense starfields and overlapping referred to superimpose).

It would have been to ordinary skill in the art at the time when the invention was made to use Peter's the pattern are superimposed, the criteria determining whether the pattern will be distinguishable over the content when applied to a product in Friddy's a method of generating an image comprising a position identifying pattern and content because it will allow to provide an improved solution for storing additional information in and reading additional information from images, *[Peter, page 2, lines 11-13]*.

Regarding claim 32, *Priddy discloses* a method according to claim 31 wherein the characteristic is a characteristic of the pattern (see items 104, 106 and 108, fig.5, *determination of density, determining cell position and identifying pattern distribution key*).

Regarding claim 33, *Priddy discloses* a method according to claim 32 wherein the characteristic of the pattern within the region is selected depending on the density of the content within the region (see items 104, 106 and 108, fig.5, *determination of density, determining cell position and identifying pattern distribution key*).

Regarding claim 34, *Priddy discloses* a method according to claim 33 wherein the pattern is made up of a plurality of pattern elements and the characteristic is the density of each of the pattern elements (see column 6, lines 6-11, *calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density*).

Regarding claim 35, *Priddy discloses* a method according to claim 34 wherein the density of each of the pattern elements is selected a high density and a low density (see *column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density*).

Regarding claim 36, *Priddy discloses* a method according to claim 35 wherein the high density corresponds to the pattern elements being substantially covered with marking material, when the image is applied to a product (see *column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density*).

Regarding claim 37, *Priddy discloses* a method according to claim 35 wherein the low density corresponds to the pattern elements being left substantially free of marking material, when the image is applied to a product (see *column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density*).

Regarding claim 38, *Priddy discloses* a method according to claim 37 including defining a size of each of the pattern elements, the size depending on whether the pattern element is high density or low density (see *column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density*

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of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density).

Regarding claim 39, *Priddy discloses* a method according to claim 34 further comprising classifying the content within the region as high density or low density, and selecting the low pattern element density if the content is high density, and the high pattern element density if the content is low density (*see column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density).*

Regarding claim 40, *Priddy discloses* a method according to claim 39 wherein the content within said region is classified as high, low or intermediate density, and the method further comprises modifying the content in the intermediate density content regions to make it higher or lower density thereby to maintain contrast between the content and the pattern in the intermediate density regions (*see column 6, lines 6-11, calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density).*

Regarding claim 41, *Priddy discloses* a method according to claim 31 wherein the characteristic is a characteristic of the content (*see items 104, 106 and 108, fig.5, determination of density, determining cell position and identifying pattern distribution key).*

Regarding claim 42, *Priddy discloses a method according to claim 41 wherein, the characteristic is the density of the content, which is limited to at least one predetermined range to maintain contrast between the content and the pattern within the region (see items 104, 106 and 108, determination of density, determination cell position and identifying pattern distribution key and column 6, line 66-column 7, lines 16, the amount of desired redundancy is then input into CPU 28 ranging from no redundancy to as high as 400% repetition of the pattern).*

Regarding claim 43, *Peter discloses a method according to claim 31 wherein the image is applied to a product using a marking material, the marking material being the same for the pattern and the content (see page 8, lines 13-25, three-dimensional pattern recognition algorithms are applied which more or less directly give, for example, the center points of a marking which "flows together" with adjoining markings).*

Regarding claim 44, *Peter discloses a method according to claim 41 wherein the characteristic of the content is the nature of the marking material to be used when applying the content to a product (see page 8, lines 13-25, three-dimensional pattern recognition algorithms are applied which more or less directly give, for example, the center points of a marking which "flows together" with adjoining markings).*

Regarding claim 45, *Peter discloses a method according to claim 44 wherein the marking material is selected to be different from that selected for applying the pattern to the product (see page 9, line 25- page 10, line 5, it is thus possible to print patterns which contain large markings/raster points without, for example losing the digitally*

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coded position information and the symbols represent at least two different values, each symbol comprising one raster point and at least one marking).

Regarding claim 46, *Peter discloses* a method according to claim 31 further comprising applying the image to a product (*see fig. 1, a product is provided with a position-coding pattern*).

Regarding claim 47, *Peter discloses* a method according to claim 46 wherein the pattern and the content are applied to the product in a one pass process (*see fig. 1, a product is provided with a position-coding pattern*).

Regarding claim 48, *Priddy discloses* a method according to claim 46 wherein the pattern and the content are applied to the product by a printer (*see items 24 and 30, optical scanner and printer*).

Regarding claim 49, *Peter discloses* a data carrier carrying data arranged to control a computer system to operate as a system according to claim 31 (*see page 12, lines 3-5, the software may be present, or stored, in any form known in the art, such as any volatile or non-volatile memory units capable of being connected to the processor and software referred to system operate*).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKLILU k. WOLDEMARIAM whose telephone number is (571)270-3247. The examiner can normally be reached on Monday-Friday 8:00 a.-5:00 p.m EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on 571-272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Le
Primary Examiner
Art Unit 2624

/A. k. W./
Examiner, Art Unit 2624
06/30/2009

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